

Serial No. 10/747,657

Docket No. 1315-050

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

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**Listing of Claims:**

1. *(Currently amended)* A method of producing TiC-transition metal-based complex powder, comprising the steps of:

(a) preparing a raw material mixture by dissolving or dispersing a [Ti-containing water-soluble salt,]  $\text{TiO}(\text{OH})_2$  slurry [or ultrafine titanium oxide powder], and [a transition metal-containing water-soluble metal salt] cobalt nitrate in water, followed by spray-drying to obtain precursor powder;

(b) calcining the precursor powder to form ultrafine [Ti-transition metal] Ti-Co complex oxide powder;

(c) mixing the ultra fine [Ti-transition metal] Ti-Co complex oxide powder with nano-sized carbon particles, followed by drying to obtain complex oxide powder; and

(d) subjecting the dried complex oxide powder to reduction/carburization in a non-oxidizing atmosphere wherein the reduction and carburization is performed by reduction at a temperature between  $600^\circ\text{C}$  to  $1100^\circ\text{C}$  and then reduction and carburization at a temperature between  $1200^\circ\text{C}$  to  $1350^\circ\text{C}$ .

2. *(Cancelled)*

3. *(Currently amended)* The method according to claim 1, wherein the content of the [transition metal] cobalt in the complex powder is in the range of 1 to 30 wt%.

4. *(Previously presented)* The method according to claim 1, wherein the calcination is performed at a temperature between  $350$  to  $1000^\circ\text{C}$ .

5. *(Cancelled)*

6. *(Cancelled)*

7. *(Cancelled).*

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8. (Cancelled)
9. (Cancelled).
10. (Cancelled).
11. (Cancelled).
12. (Currently amended) The method according to claim [11] 1, wherein the TiC-Co complex powder has a particle size of from 50 nm to 300 nm.
13. (Cancelled).
14. (Cancelled).
15. (Currently amended) The method according to claim [11] 1, wherein said TiC-Co complex powder is TiC-15 wt% Co complex powder.
16. (Cancelled).
17. (Cancelled)
18. (Previously presented) The TiC-transition metal-based complex powder made by the process of Claim 1.
19. (Previously presented) The powder of claim 18 wherein the particle size of the powder is in the range of 50 nm to 300 nm.
20. (New) A method of producing TiC-transition metal-based complex powder, comprising the steps of:
  - (a) preparing a raw material mixture by dissolving or dispersing a nano-sized  $\text{TiO}_2$  and cobalt nitrate in water, followed by spray-drying to obtain precursor powder;
  - (b) calcining the precursor powder to form ultrafine Ti-Co complex oxide powder;

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(c) mixing the ultra fine Ti-Co complex oxide powder with nano-sized carbon particles, followed by drying to obtain complex oxide powder; and

(d) subjecting the dried complex oxide powder to reduction/carburization in a non-oxidizing atmosphere wherein the reduction and carburization is performed by reduction at a temperature between 600°C to 1100°C and then reduction and carburization at a temperature between 1200°C to 1350°C.

21. (New) The method according to claim 20, wherein the content of the cobalt in the complex powder is in the range of 1 to 30 wt%.

22. (New) The method according to claim 20, wherein the calcination is performed at a temperature between 350 to 1000°C.

23. (New) The method according to claim 20, wherein the Ti-Co complex is TiC-15 wt% Co complex powder.